



Guardians of the Range

California Rangeland Conservation Coalition

“Carefully managed grazing can support healthy ecosystems and promote robust pollinator populations.”

*- Jessa Guisse
The Xerces Society*

Photos courtesy of
Claudia Street, Glenn
County Resource
Conservation District

Partners

- USDA Natural Resources Conservation Service
- Xerces Society for Invertebrate Conservation
- Glenn County Resource Conservation District

A Linkage Between Bees and Beef

Massa Ranch, Glenn County

In 2009, a group of California Rangeland Conservation Coalition signatories teamed up with a Glenn County cattle rancher to encourage native wildflowers and bees. To date, about four acres of wildflowers have been established on two different ranches in Glenn County. There are plans underway for several other voluntary projects that will provide foraging ground for thousands of native pollinators in the future.

Fifth-generation rancher, Larry Massa, has voluntarily encouraged the establishment of a strong population of native pollinators on his ranch through active management and targeted restoration projects. Massa notes that today, many of the abundant displays of colorful wildflowers once present in the county, and on his ranch, have disappeared in the past 40 years.

“By creating these habitats, the rancher is providing a steady supply of food for native insects,” said Rob Vlach, district conservationist at the Willows field office of the U.S. Department of Agriculture, Natural Resources Conservation Service. “We hope native wildflowers will provide a beautiful addition to the landscape and support other wildlife, such as songbirds, butterflies and other beneficial insects. We believe the end result will be a greater abundance and diversity of native bees.”



Cattle Grazing on the restored area.

for the cattle (grasses and clover) and left intact the wildflowers for pollinators.

Studies have shown that carefully managed grazing can benefit wildlife, including pollinators, by helping to maintain an open plant structure. Cattle will graze down dense stands of non-native grasses, opening up areas for increased plant diversity, especially native wildflowers. These invasive, non-native grasses have long been implicated in the decline of many unique native plant communities in California grasslands.

Grazing can be a tool in restoring California’s unique grassland habitat and in turn, protecting pollinators



Grazing can be a tool in restoring California’s unique grassland habitat and in turn, protecting pollinators and other wildlife that depend on this native ecosystem.



Partners planting the native wildflowers, grasses and clovers.



Massa Ranch, Glenn County

and other wildlife that depend on this native ecosystem. This type of research is what led the Xerces Society for Invertebrate Conservation (Xerces) to see the value in partnering up with private landowners.

The Xerces has played a leading role in the projects on the Massa Ranch and voluntary projects with seven other agricultural producers throughout California. The organization provides project design oversight, financial compensation and teams up with local Resource Conservation Districts to provide long term monitoring.

Of interest to other ranchers and land managers concerned with Star Thistle, this project has found that grazing can also be an effective tool for managing the invasive weed. Star thistle has historically been a problem on Massa's ranch, as it has been on many ranches throughout the state. A combination of carefully timed mowing and managed grazing was employed throughout the project site to provide control of Star Thistle, without sacrificing the native wildflowers. The cattle effectively grazed down the bolting Star Thistle, but did not eat the wildflowers. The star thistle has been almost completely eradicated from the project site, and the wildflowers have continued to flourish.



Native pollinator using the restored private lands

states Jessa Guisse of The Xerces Society. "Carefully managed grazing can support healthy ecosystems and promote robust pollinator populations, and supporting robust pollinator populations is in everyone's best interest."

"After three years of working on this project, I am excited by the results which suggest that grazing and native pollinator restoration projects can go hand in hand,"

Pollinators are considered keystone species because they are necessary for the reproduction of nearly 80% of all flowering plants, and they allow these plants to produce fruits and nuts that are an essential source of food for all types of wildlife. Pollinators are equally critical for human diets – approximately one in every three bites of food that we eat requires a pollinator.

Although much of the crop pollination that occurs in California agriculture can be attributed to managed honey bees, the value of wild pollinators to crop pollination in this state is estimated to be between \$937 million and \$2.4 billion per year. Enhancing rangelands can only serve to increase pollinator populations and the ecosystem service to adjacent croplands that they provide.

"There are over 1,500 different species of native bees in California, including the bumblebees, mining bees, mason bees and sweat bees that have been found on Massa's ranch," Guisse said. "By providing the necessary elements for the bees – nesting habitat, pollen and nectar, we project that bee populations on this ranch and others like it will flourish."

In fact, the pollinator meadow at the Massa Ranch is already supporting an impressive abundance and diversity of native pollinators. Kimiora Ward, research associate for Neal Williams, Ph.D., University of California, Davis, has been monitoring the site for pollinators as part of a larger project, investigating how wildflower restorations can be successful in increasing pollinator populations. In a recent monitoring sample, Ward recorded ten different bee species, several butterfly species, and a large number of other beneficial insects visiting the meadow in just a five minute period.

"We have had great success with these projects," says Vlach. "We are looking forward to doing more!"



Successful Project!

This story is courtesy of the California Rangeland Conservation Coalition. To learn more about what other ranchers are doing throughout the state or about this cooperative partnership visit

www.carangeland.org

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